

REMARKS

I. Introduction

Currently, the present application is under appeal and this amendment is being submitted concurrently with a request for continued examination (RCE). With this amendment, claims 1, 14, 18, and 21-23 have been amended. Claims 1, 14, 18, and 21-23 are the only independent claims.

II. The Rejections In The Previous Office Action

Claims 14-19 and 23-24 were previously rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,841,780 to Cofer in view of U.S. Patent No. 6,218,962 to Fiene. Claims 1-12 and 21-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Published Application No. 2003/0118237 to Laird in view of Cofer and further in view of Fiene. Claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over Laird in view of Cofer. Claims 20 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cofer in view of Laird.

III. The Pending Claims Are Allowable

a. The Amendments to the Claims

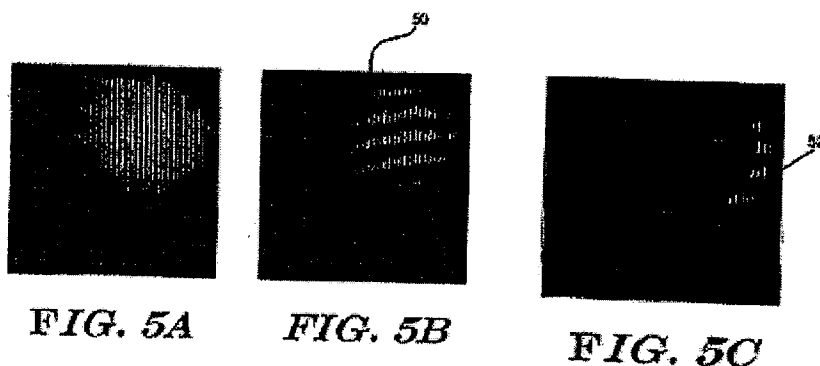
The claims have been amended to specify that the line of light is projected at least during the period of all barrier movements and that this is effective to provide obstruction detection at least during these time periods. Among other places, these amendments are supported at page 4, lines 8-12 and page 8, lines 21-24 of the specification.

b. The References

Cofer

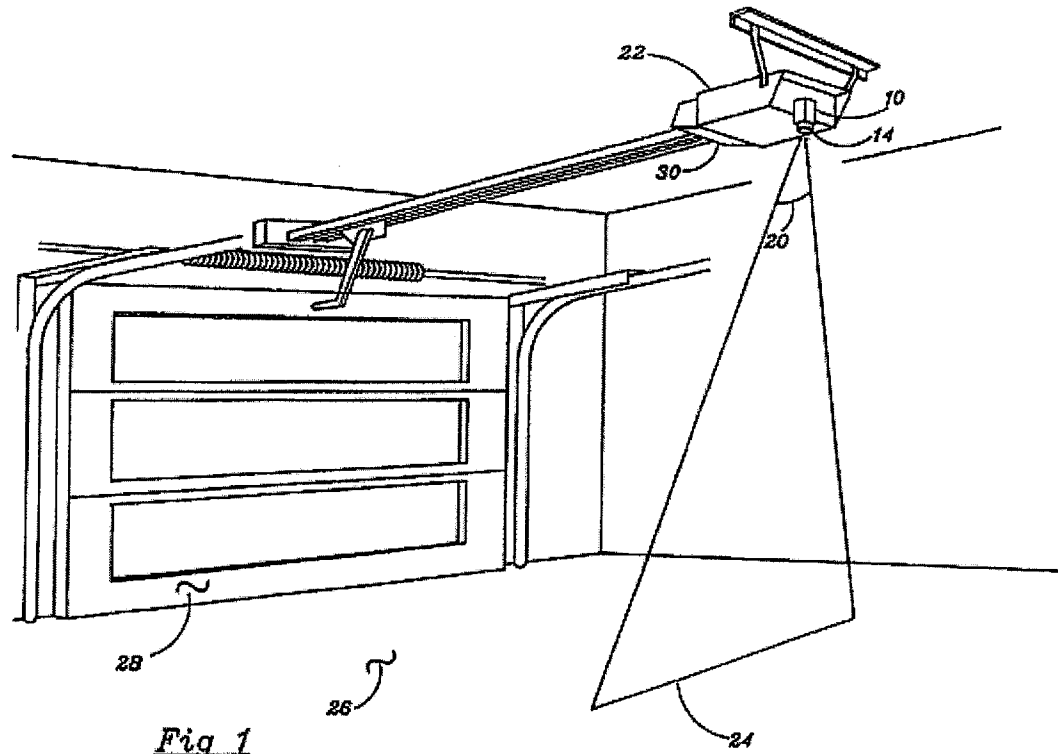
Cofer describes a system that detects the presence of objects in a monitored area. One or more complex patterns of light are projected onto the monitored area. Changes in the complex patterns are detected in the monitored area and these changes indicate the presence of an object in the monitored area. See Cofer, Abstract.

More specifically, Cofer teaches that a moiré interference pattern is projected onto the monitored area. The moiré interference pattern may be created in several ways. For example, two complex patterns of light may be projected onto the same area. Additionally, one pattern may be projected onto the monitored area while another may be imposed by a pattern grating positioned in the image plane of an image capture device. Further, two images of the same pattern in the same area may be captured and rotated. See Cofer at column 2, lines 1-39 and Cofer's FIGs. 5a-c reproduced below for the convenience of the Examiner.



Fiene

The Fiene reference describes a system for helping a driver park their car in a garage at a specified location. Fiene is specifically not concerned with detecting the presence of an obstacle. As shown in FIG. 1 of Fiene (reproduced below for the convenience of the Examiner), a line of light 24 is projected down from the operator 22. The driver knows from experience that when the line hits a particular spot on the car, the car is in the correct parked position. Fiene's use of the line of light does not and will not vary regardless of whether an obstacle is present or not. His light is provided to encourage the driver of the vehicle to park their car at a specified location. See Fiene, FIG.1 and col. 3, lines 44-50.



Laird

Laird uses a digital imaging device such as a CCD camera to protect an area from unauthorized intrusions. The digital imaging device views a predetermined pattern positioned across the area from the digital image device (e.g., a pattern on a wall). When an object enters the field of view, it interrupts the viewing of and obscures the recognizable pattern. The digital image device detects when this situation occurs and an alarm can be initiated. (Laird, paragraph 11). No light line is used in the Laird system.

c. The Amended Claims Are Allowable

Claims 14-19 and 23-24 are allowable over Cofer and Fiene

The Examiner stated in his Answering Brief that "to project a line pattern at all times is not required by the language of claim 14 and there is no basis for reading this term into the

claim... nowhere in the claim does it mention that the projection is projected at all times.” Examiner’s Answering Brief at page 14.

As mentioned, claim 14 has been amended to recite that the line of light is projected at least during all periods of barrier movement and that this is effective to provide obstruction detection at least during these time periods. In contrast, Fiene teaches that the line of light must be projected for only a short period of time when the driver parks the car and this is not tied to a period of barrier movement. In fact, Fiene teaches that the line of light 24 is only turned on with a courtesy light (as also comprises a part of the operator) or when the operator is activated by a remote transmitter. Fiene also notes that the parking-guidance light can turn off before the courtesy light turns off. Fiene, col. 3, lines 36-40. Hence, the period of parking-guidance light activation does not coincide with the period of barrier movement and effective obstruction detection is not provided during these periods.

Furthermore, the Fiene system does not project the light if operated from a push button wall control. Fiene, col. 5, lines 9-16. Fiene specifically teaches that the line of light is *not* projected at these times since children are likely present in the garage and it is desired to avoid children looking at the light. The wall control is actuated to move the barrier and, consequently, Fiene teaches that during such barrier movements (i.e., during time periods when obstruction detection would be most needed), the parking-guidance line of light will not be projected. Accordingly, it is clear that Fiene actually specifically teaches away from providing a line of light during certain periods of barrier movement when people might be present in order to protect those people.

For at least the above-mentioned reasons, it is submitted that Fiene teaches against any modification of Cofer that would allow Cofer to project a line of light at least during all periods of barrier movement to provide effective obstruction detection. It is not proper to combine references if there is a teaching against the proposed combination or modification in one of the references. See MPEP 2141. As Fiene specifically teaches away from utilizing his line of light during certain barrier movement operations, it would not be obvious to combine Fiene’s teachings with Cofer in a way that results in opposing behavior and functionality.

Furthermore, the Applicant submits that a fair combination of Fiene and Cofer will not match the recitations of claim 14 as such a combination will produce a mechanism that does not provide its light line at all times during movement of the barrier. Instead, the Applicants

respectfully submit that one can only achieve the claimed result by employing the Applicants' own teachings, using impermissible hindsight, to effect a selective picking and choosing amongst the teachings of two references.

Independent claims 18 and 23 have recitations similar to claim 14 and it is asserted that these claims are allowable for the same reasons as claim 14. Claims 15-17 depend upon claim 14, claim 19 depends upon claim 18, and claim 24 depends upon claim 23. Since claims 14, 18, and 23 have been shown to be allowable, it is asserted that these dependent claims are also allowable.

Claims 1-12 and 21-22 are allowable over Laird, Cofer and Fiene

Independent claims 1, 21, and 22 have recitations similar to claim 14 and were rejected over the Laird, Cofer, and Fiene combination. The Cofer and Fiene references have been discussed above. Laird corrects none of the deficiencies of Cofer or Fiene. More specifically, Laird does not teach or suggest the projection of a single straight line of light as recited in claims 1, 21, and 23, much less the projection of a substantially straight line in the absence of an obstruction. In fact, because there is no image projection device, nothing can be projected in Laird. In addition, Laird does not teach or suggest determining when the single straight line of line changes as is also recited in claim 1. Consequently, the Applicants submit that claims 1, 21, and 22 are allowable for the same reasons as claim 14.

Claims 2-12 depend upon claim 1, which has been shown to be allowable for the reasons stated above. Consequently, the Applicants assert that claims 2-12 are allowable for the same reasons as given above with respect to claim 1.

Claim 13 is allowable over Laird in view of Cofer

Because of its dependence on claim 1, claim 13 recites that the line of light is projected at least during all periods of barrier movement and that this is effective to provide obstruction detection at least during these time periods. However, for the reasons stated above, neither Laird nor Cofer teach or suggest these claim elements. Consequently, the Applicants assert that claim 13 is allowable over the proposed combination.

Claims 20 and 25 are allowable over Cofer and Laird

Because of their dependency on claims 18 and 23, claims 20 and 25 recite that the line of light is projected at least during all periods of barrier movement and that this is effective to provide obstruction detection at least during these time periods. However, for the reasons stated above, neither Laird nor Cofer teach or suggest these claim elements. Consequently, the Applicants assert that claims 20 and 25 are allowable for the same reasons as given above with respect to claim 18.

IV. Conclusion

Based upon the foregoing amendments and remarks, it is submitted that the pending claims and application are in condition for allowance. The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-1135.

Respectfully submitted,

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